STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 146175

TO: Janet Epps-Ford Location: REM 2C18 Art Unit: 1635 Friday, March 04, 2005 Case Serial Number: 09/438365	From: Mary Hale Location: Biotech/Chem Library Rem 1D86 Phone: 2-2507 Mary.Hale@uspto.gov

Search Notes

Feel free to contact me if you have any questions.

Access DB# 146175

SEARCH REQUEST FORM

Scientific and Technical Information Center

FEB 25 2005

Requester's Full Name: Janet Epps-Ford Examiner #: 76570 Date: 2-25-05
Art Unit: 1635 Phone Number 30 571-272-0757 Serial Number: 09/438,365
Mail Box and Bldg/Room Location: 2C18 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.
****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

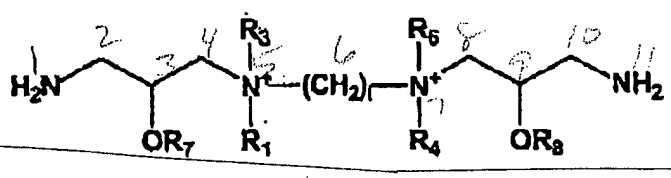
Title of Invention: Transfection Reagents

Inventors (please provide full names): Yongliang Chu, Malek Masoud, Gulilat Gebeyehu

Earliest Priority Filing Date: 11/12/1998

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

12. (Currently amended) A compound having the formula:



wherein

X^- is a physiologically acceptable anion;

a is the number of anions which is equal to the number of positive charges in the compound divided by the valence of the anion;

R_1, R_3, R_4, and R_6, independently of one another, are selected from the group consisting of H, an alkyl group, an alkenyl group, an alkynyl group, and an aryl group, wherein any one of R_1, R_3, R_4, and R_6 are optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group, and at least two of R_1, R_3, R_4, and R_6, are straight-chain, branched, or cyclic alkyl, alkynyl, or alkenyl ~~or aryl~~ groups having from 8 to ~~about~~ 24 carbon atoms attached to each N and R_1, R_3, R_4 and R_6 may optionally be covalently linked with each other;

R_7 and R_8 are independently H or a carbohydrate; and

l is an integer from 1 to about 4.

945
938-48

43
10.00
43
17.27

****
STAFF USE
Searcher: _____ NA Sequence (#)_____ STN _____
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able

Epps - Ford
09/438365

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=> dis his

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               DEL HIS Y

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L3              0 S L1 FUL
L4                STR L1
L5              2 S L4
L6             40 S L4 FUL
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L8              0 SEARCH L7  SUB=L6 FUL

=> d l8 que stat;d l6 que stat;fil hcaplu;s l6
L4                STR
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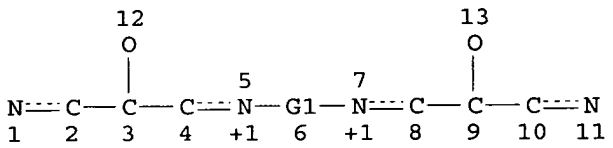


```
REP G1=(1-4) CH2
NODE ATTRIBUTES:
CHARGE  IS E+1    AT   5
CHARGE  IS E+1    AT   7
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  13

STEREO ATTRIBUTES: NONE
L6             40 SEA FILE=REGISTRY SSS FUL L4
L7                STR
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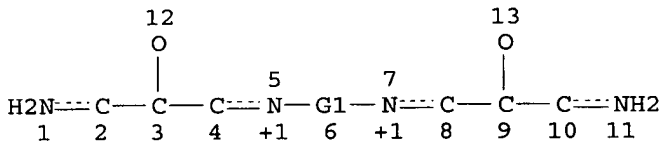


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REP G1=(1-4) CH2
NODE ATTRIBUTES:
CHARGE  IS E+1    AT   5
CHARGE  IS E+1    AT   7
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  13

STEREO ATTRIBUTES: NONE
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Searched by: Mary Hale 571-272-2507 REM 1D86
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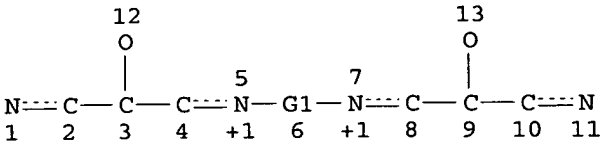

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CHARGE IS E+1 AT 5
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE
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SEARCH TIME: 00.00.01

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FULL ESTIMATED COST	362.86	877.32

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-5.54

FILE 'HCAPLUS' ENTERED AT 09:43:19 ON 04 MAR 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 4 Mar 2005 VOL 142 ISS 10
FILE LAST UPDATED: 2 Mar 2005 (20050302/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

Searched by: Mary Hale 571-272-2507 REM 1D86

L9 3 L6

=> d 1-3 cbib abs hitstr;fil caol;s l6

L9 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN
1993:175030 Document No. 118:175030 Effects of ionene polymers structure on breaking of dodecane/water emulsion. Murai, Koichi; Narita, Miyuki; Serita, Hajime; Hamada, Fumio (Min, Coll., Akita Univ., Akita, Japan). Akita Daigaku Kozangakubu Kenkyu Hokoku, 13, 25-30 (Japanese) 1992. CODEN: KHADD3. ISSN: 0389-8040.

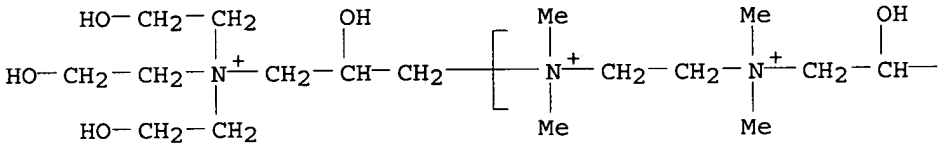
AB The effect of polymer addition on the breaking of dodecane/water emulsions stabilized by p-nonylphenyl poly(oxyethylene) ether was studied by use of an ionene polymer having functional group A (alkylene), O (oxyethylene), Am (N-methylaminoethylene), U (trimethyleneureylenetrimethylene), and OH (2-hydroxytrimethylene). The preceding paper reported the influence of A, O, and Am groups on the breaking effect. In this paper that of U and OH groups was reported, and the effect of the polymer structure on the emulsion breaking was discussed. The residual dodecane concentration in the emulsion breaking decreased in the order of A > U > OH > O > Am, and the optimum polymer dosage increased in the order of A < Am < U < OH < O. Branched chain polymers were particularly effective in reducing the residual dodecane concentration

IT **118596-87-5 146840-10-0**
RL: PROC (Process)
(emulsion breaking with, of dodecane-water emulsions)

RN 118596-87-5 HCAPLUS

CN Poly[(dimethyliminio)-1,2-ethanediyl(dimethyliminio)(2-hydroxy-1,3-propanediyl) dichloride], α-[2-hydroxy-3-[tris(2-hydroxyethyl)ammonio]propyl]-ω-[tris(2-hydroxyethyl)ammonio]-, dichloride (9CI) (CA INDEX NAME)

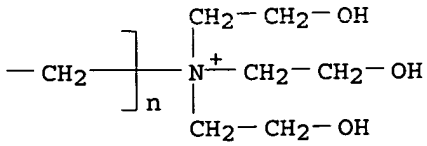
PAGE 1-A



●2 Cl⁻

●2 Cl⁻

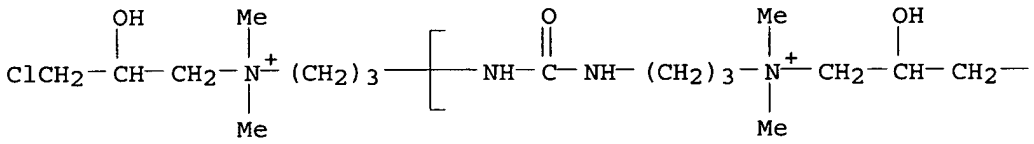
PAGE 1-B



Searched by: Mary Hale 571-272-2507 REM 1D86

RN 146840-10-0 HCAPLUS
CN Poly[iminocarbonylimino-1,3-propanediyl(dimethyliminio)(2-hydroxy-1,3-propanediyl)(dimethyliminio)-1,2-ethanediyl(dimethyliminio)(2-hydroxy-1,3-propanediyl)(dimethyliminio)-1,3-propanediyl tetrachloride], α-[3-[(3-chloro-2-hydroxypropyl)dimethylammonio]propyl]-ω-[[[[3-[(3-chloro-2-hydroxypropyl)dimethylammonio]propyl]amino]carbonyl]amino]-, dichloride (9CI) (CA INDEX NAME)

PAGE 1-A



●6 Cl⁻

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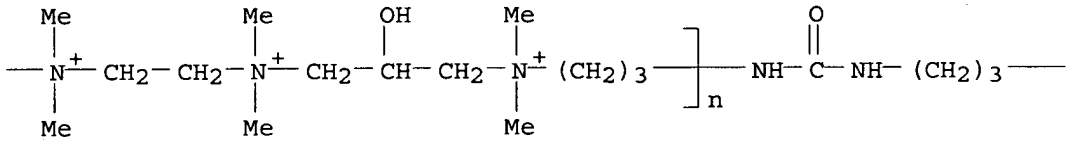

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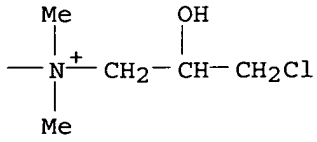


L9 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN
1989:76340 Document No. 110:76340 Polymeric quaternary ammonium compounds, their preparation and use. Fenyes, Joseph G.; Pera, John D. (Buckman Laboratories International, Inc., USA). U.S. US 4778813 A 19881018, 12 pp. Cont. of U.S. Ser. No. 280,974, abandoned. (English). CODEN: USXXAM. APPLICATION: US 1985-696575 19850130. PRIORITY: US 1981-280974 19810707.
AB The quaternary ammonium polymers [R2N(R1)CH2CH(OH)CH2[ZCH2CH(OH)CH2]nN(R1)R2]+2.2Cl- [R = Me, C5-22 alkyl (optionally unsatd.), cyclohexyl, PhCH2, Ph; R1 = Me, Et, Pr, Bu, C2-3 hydroxyalkyl; or R + R1 form a pyridyl ring; Z = [-N(Me)2CH2CH2OCH2CH2N(Me)2-]2+.2Cl-, n = odd number (1-201)] are useful as microbicides, corrosion inhibitors, debonding agents, flocculants, softeners, and emulsion breakers. Refluxing 2 mol 65.7% aqueous [ClCH2CH(OH)CH2N(Me)2CH2CH2N(Me)2CH2CH(OH)CH2Cl]+2.2Cl- [prepared from epichlorohydrin and Me2NCH2CH2NMe2 (I)] with 1 mol I for 1 h gave a 65.8% aqueous solution of quaternary ammonium polymer (II). At pH 6.0-6.5, 7.0-7.5, and 8.0-8.5, the concentration of II required to kill ≥80% Enterobacter aerogenes in 18 h was 2.0, 2.0-4.0, and 4.0 ppm, resp.
IT **103381-23-3DP**, polymers with dicocomethylamine
103710-02-7P 118596-86-4P 118596-87-5P
118596-88-6P 118596-89-7P 118655-02-0P

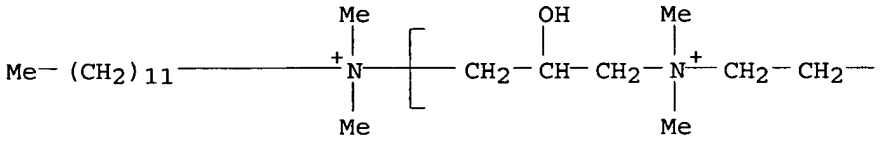
Searched by: Mary Hale 571-272-2507 REM 1D86

RL: PRP (Properties); PREP (Preparation)
(preparation and properties of)

RN 103381-23-3 HCAPLUS

CN Poly[(dimethyliminio)-1,2-ethanediyl(dimethyliminio)(2-hydroxy-1,3-propanediyl) dichloride], α-[3-(dodecyldimethylammonio)-2-hydroxypropyl]-ω-(dodecyldimethylammonio)-, dichloride (9CI) (CA INDEX NAME)

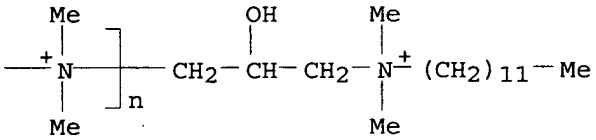
PAGE 1-A



●2 Cl⁻

●2 Cl⁻

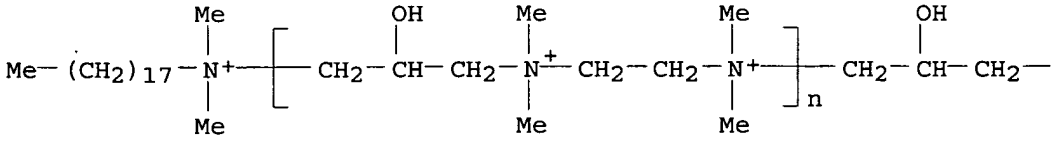
PAGE 1-B



RN 103710-02-7 HCAPLUS

CN Poly[(dimethyliminio)-1,2-ethanediyl(dimethyliminio)(2-hydroxy-1,3-propanediyl) dichloride], α-[3-(dimethyloctadecylammonio)-2-hydroxypropyl]-ω-(dimethyloctadecylammonio)-, dichloride (9CI) (CA INDEX NAME)

PAGE 1-A



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●2 Cl⁻

Searched by: Mary Hale 571-272-2507 REM 1D86

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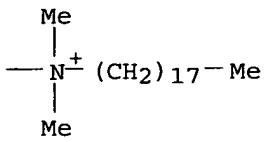
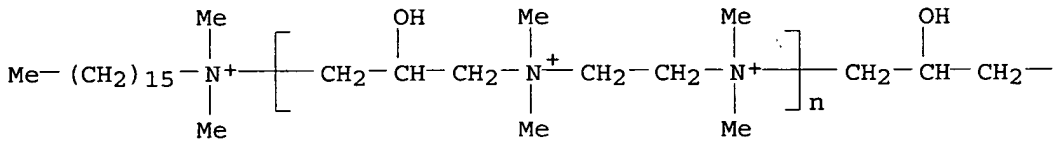


RN 118596-86-4 HCAPLUS
CN Poly[(dimethyliminio)-1,2-ethanediyl(dimethyliminio)(2-hydroxy-1,3-propanediyl) dichloride], α-[3-(hexadecyldimethylammonio)-2-hydroxypropyl]-ω-(hexadecyldimethylammonio)-, dichloride (9CI) (CA INDEX NAME)

PAGE 1-A



●2 Cl⁻

●2 Cl⁻

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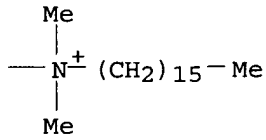
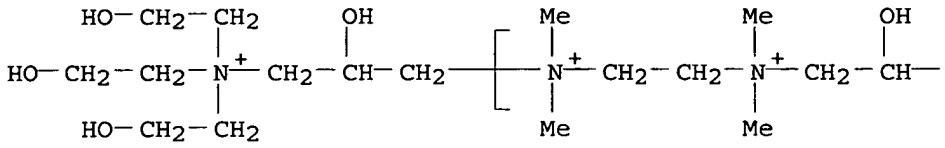


RN 118596-87-5 HCAPLUS
CN Poly[(dimethyliminio)-1,2-ethanediyl(dimethyliminio)(2-hydroxy-1,3-propanediyl) dichloride], α-[2-hydroxy-3-[tris(2-hydroxyethyl)ammonio]propyl]-ω-[tris(2-hydroxyethyl)ammonio]-, dichloride (9CI) (CA INDEX NAME)

Searched by: Mary Hale 571-272-2507 REM 1D86

PAGE 1-A



●2 Cl⁻

●2 Cl⁻

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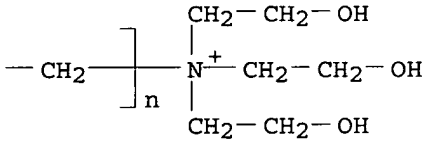

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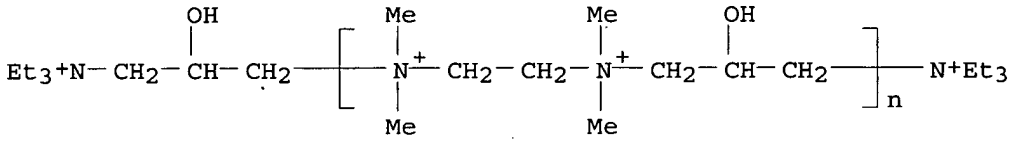


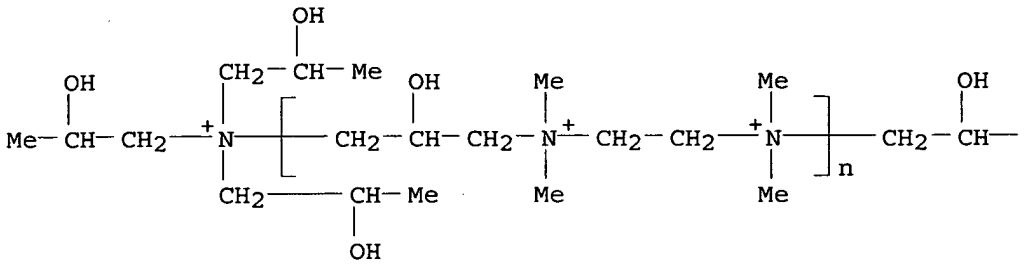
●2 Cl⁻

●2 Cl⁻

RN 118596-89-7 HCAPLUS
CN Poly[(dimethyliminio)-1,2-ethanediyl(dimethyliminio)(2-hydroxy-1,3-propanediyl) dichloride], α-[2-hydroxy-3-[tris(2-hydroxypropyl)ammonio]propyl]-ω-[tris(2-hydroxypropyl)ammonio]-, dichloride (9CI) (CA INDEX NAME)

Searched by: Mary Hale 571-272-2507 REM 1D86

PAGE 1-A



●2 Cl⁻

●2 Cl⁻

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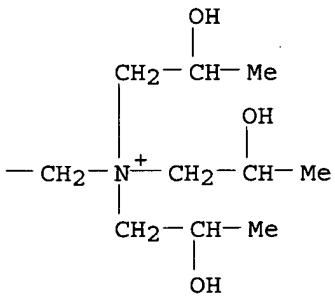
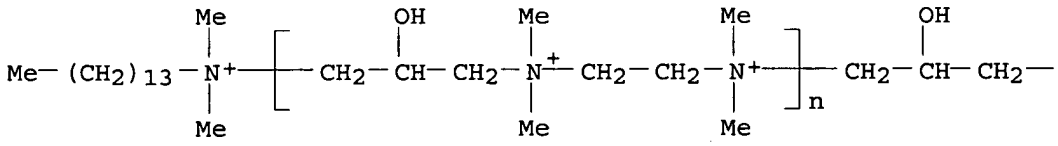


RN 118655-02-0 HCAPLUS
CN Poly[(dimethyliminio)-1,2-ethanediyl(dimethyliminio)(2-hydroxy-1,3-propanediyl) dichloride], α-[3-(dimethyltetradecylammonio)-2-hydroxypropyl]-ω-(dimethyltetradecylammonio)-, dichloride (9CI) (CA INDEX NAME)

PAGE 1-A



●4 Cl⁻

Searched by: Mary Hale 571-272-2507 REM 1D86

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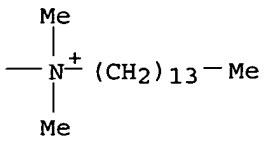
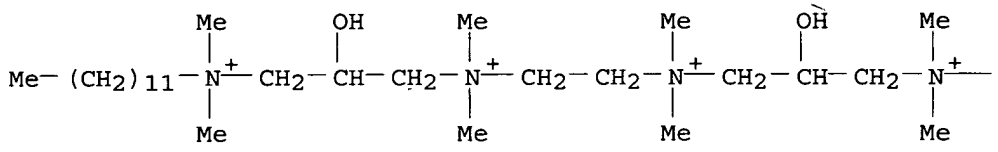


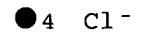
IT **103526-33-6P 103526-34-7P 103548-76-1P**
118596-85-3P 118901-97-6P 118901-98-7P
118955-20-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and uses of)

RN 103526-33-6 HCAPLUS

CN 1,3-Propanediaminium, N,N''-1,2-ethanediylbis[N'-dodecyl-2-hydroxy-N,N,N',N'-tetramethyl-, tetrachloride (9CI) (CA INDEX NAME)

PAGE 1-A





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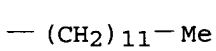
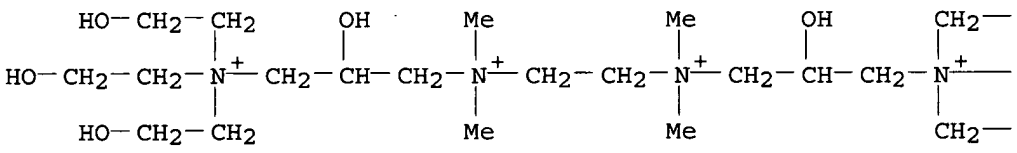
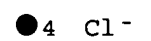


RN 103526-34-7 HCAPLUS

CN 1,3-Propanediaminium, N,N''-1,2-ethanediylbis[2-hydroxy-N',N',N'-tris(2-hydroxyethyl)-N,N-dimethyl-, tetrachloride (9CI) (CA INDEX NAME)

PAGE 1-A





PAGE 1-B

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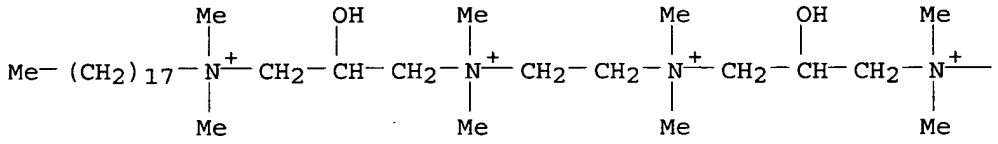
— CH_2— CH_2— OH

—— CH_2— OH

RN 103548-76-1 HCAPLUS
CN 1,3-Propanediaminium, N,N''-1,2-ethanediylbis[2-hydroxy-N,N,N',N'-tetramethyl-N'-octadecyl-, tetrachloride (9CI) (CA INDEX NAME)

PAGE 1-A



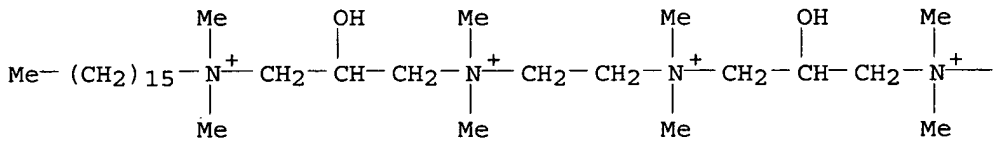
●4 Cl^-

PAGE 1-B

— $(CH_2)_{17}$— Me

RN 118596-85-3 HCAPLUS
CN 1,3-Propanediaminium, N,N''-1,2-ethanediylbis[N'-hexadecyl-2-hydroxy-N,N,N',N'-tetramethyl-, tetrachloride (9CI) (CA INDEX NAME)

PAGE 1-A



●4 Cl^-

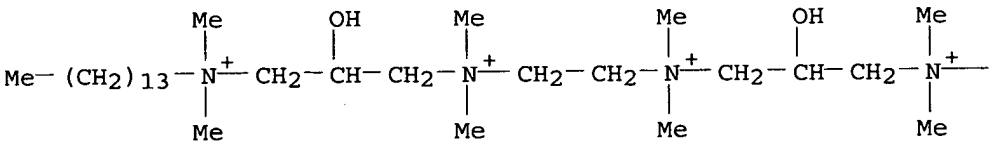
PAGE 1-B

— $(CH_2)_{15}$— Me

Searched by: Mary Hale 571-272-2507 REM 1D86

RN 118901-97-6 HCAPLUS
CN 1,3-Propanediaminium, N,N''-1,2-ethanediylbis[2-hydroxy-N,N,N',N'-tetramethyl-N'-tetradecyl-, tetrachloride (9CI) (CA INDEX NAME)

PAGE 1-A

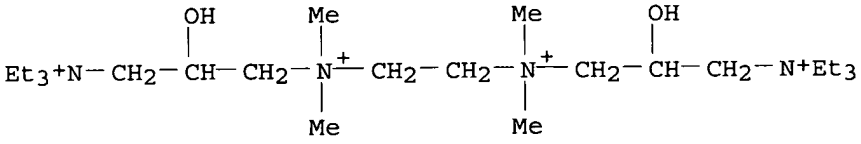


●4 Cl⁻

PAGE 1-B

— $(CH_2)_{13}$ — Me

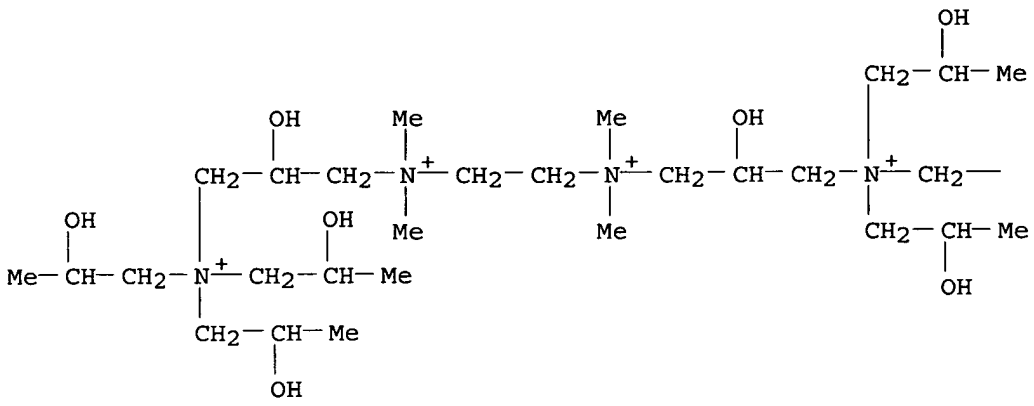
RN 118901-98-7 HCAPLUS
CN 1,3-Propanediaminium, N,N''-1,2-ethanediylbis[N',N',N'-triethyl-2-hydroxy-N,N-dimethyl-, tetrachloride (9CI) (CA INDEX NAME)



●4 Cl⁻

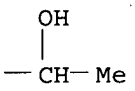
RN 118955-20-7 HCAPLUS
CN 1,3-Propanediaminium, N,N''-1,2-ethanediylbis[2-hydroxy-N',N',N'-tris(2-hydroxypropyl)-N,N-dimethyl-, tetrachloride (9CI) (CA INDEX NAME)

PAGE 1-A



●4 Cl⁻

PAGE 1-B



L9 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN

1986:479564 Document No. 105:79564 Ionene-type polymers. Fenyes, Joseph Gabriel; Pera, John Dominic (Buckman Laboratories, Inc., USA). Brit. UK Pat. Appl. GB 2160538 A1 19851224, 19 pp. (English). CODEN: BAXXDU. APPLICATION: GB 1984-15965 19840622.

AB The ionene polymers have the formula RR12N+CH2CH(OH)CH2[ZCH2CH(OH)CH2]nN+R 12R (2n + 2)Cl- [R = Me and R1 = Me, C6-18 alkyl, alkenyl, alkadienyl, cyclohexyl; or R = R1 = Et, Pr, Bu, hydroxyethyl, hydroxypropyl; or NR12 = piperidyl or NRR12 = pyridyl; Z = NMe2(CH2)mNMe2, NMe2CH2CH2OCH2CH2NMe2, N,N'-dimethylpiperazine; m = 2-12; n = 1-201 (odd only)] and are prepared by the reaction of ClCH2CH(OH)CH2ZCH2CH(OH)CH2Cl with a tertiary diamine, and then further treating this precursor with 2 mol of a tertiary monoamine. These ionene polymers are useful as plant growth regulators, waterproofing agents, textile additives, fungicides, and cellulose pulp additives. Thus, 187.8 g of a 61% aqueous solution of Me2NCH2CH2NMe2 was cooled in an ice bath, and 2 mol 37% HCl was added at a rate to keep the temp <45°. To this stirred solution, 185.0 g epichlorohydrin was slowly added. The mixture was heated (60-70°) for 30 min and then precipitated with acetone, filtered, and dried over P2O5. One mole of a 65.7% aqueous solution of the above product was reacted at reflux temperature for 4 h with 2 mol n-dodecyldimethylamine to give a final product having 80.5% solids content.

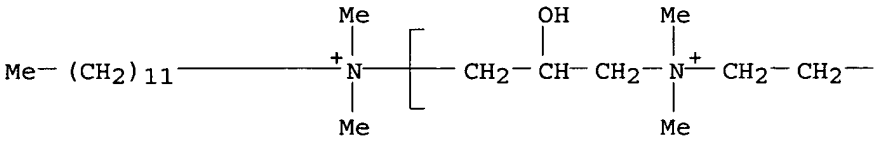
IT **103381-23-3P 103526-33-6P 103526-34-7P 103526-37-0P 103526-38-1P 103526-39-2P**

Searched by: Mary Hale 571-272-2507 REM 1D86

103526-40-5P 103548-76-1P 103548-77-2P
103710-02-7P
RL: PREP (Preparation)
(preparation of)

RN 103381-23-3 HCAPLUS
CN Poly[(dimethyliminio)-1,2-ethanediyl(dimethyliminio)(2-hydroxy-1,3-propanediyl) dichloride], α-[3-(dodecyldimethylammonio)-2-hydroxypropyl]-ω-(dodecyldimethylammonio)-, dichloride (9CI) (CA INDEX NAME)

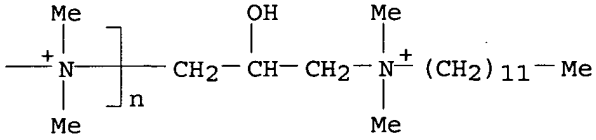
PAGE 1-A



●2 Cl⁻

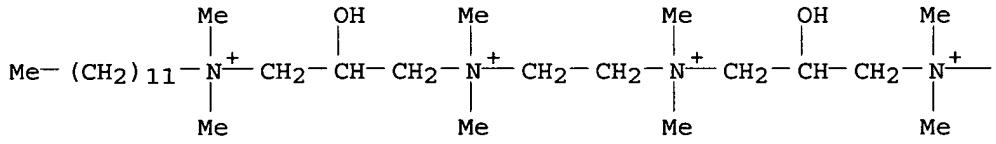
●2 Cl⁻

PAGE 1-B



RN 103526-33-6 HCAPLUS
CN 1,3-Propanediaminium, N,N''-1,2-ethanediylbis[N'-dodecyl-2-hydroxy-N,N,N',N'-tetramethyl-, tetrachloride (9CI) (CA INDEX NAME)

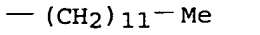
PAGE 1-A



●4 Cl⁻

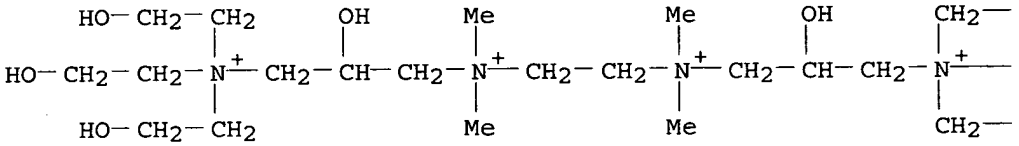
Searched by: Mary Hale 571-272-2507 REM 1D86

PAGE 1-B

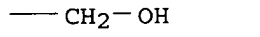


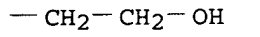
RN 103526-34-7 HCAPLUS
CN 1,3-Propanediaminium, N,N''-1,2-ethanediylbis[2-hydroxy-N',N',N'-tris(2-hydroxyethyl)-N,N-dimethyl-, tetrachloride (9CI) (CA INDEX NAME)

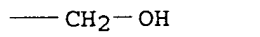
PAGE 1-A



PAGE 1-B

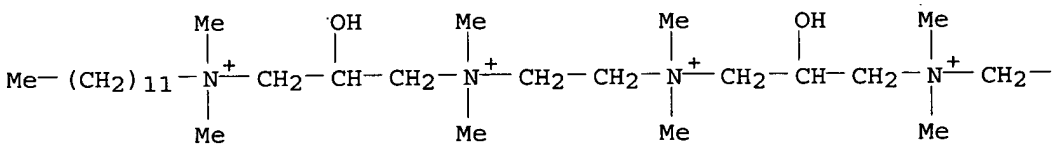


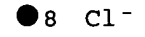




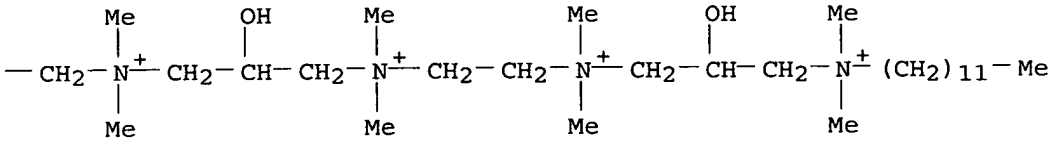
RN 103526-37-0 HCAPLUS
CN 4,7,11,14,18,21-Hexaazoniatetracosane-1,24-diaminium, N,N'-didodecyl-2,9,16,23-tetrahydroxy-N,N,N',N',4,4,7,7,11,11,14,14,18,18,21,21-hexadecamethyl-, octachloride (9CI) (CA INDEX NAME)

PAGE 1-A



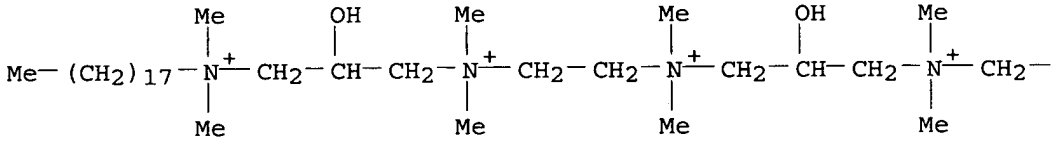


PAGE 1-B



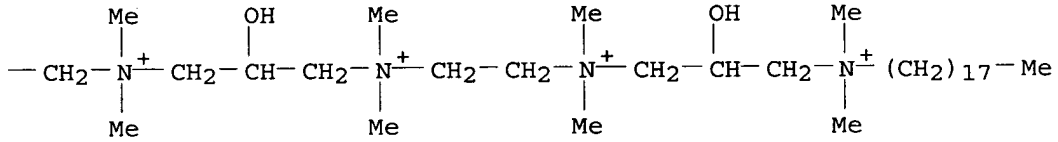
RN 103526-38-1 HCAPLUS
CN 4,7,11,14,18,21-Hexaazoniatetracosane-1,24-diaminium, 2,9,16,23-tetrahydroxy-N,N,N',N',4,4,7,7,11,11,14,14,18,18,21,21-hexadecamethyl-N,N'-dioctadecyl-, octachloride (9CI) (CA INDEX NAME)

PAGE 1-A



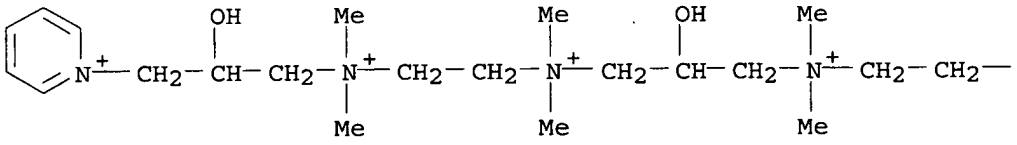
● 8 Cl⁻

PAGE 1-B



RN 103526-39-2 HCAPLUS
CN Pyridinium, 1,1'-(2,9,16,23-tetrahydroxy-4,4,7,7,11,11,14,14,18,18,21,21-dodecamethyl-4,7,11,14,18,21-hexaazoniatetracosane-1,24-diyl)bis-, octachloride (9CI) (CA INDEX NAME)

PAGE 1-A



● 8 Cl⁻

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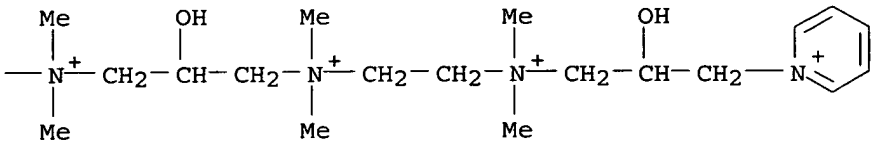
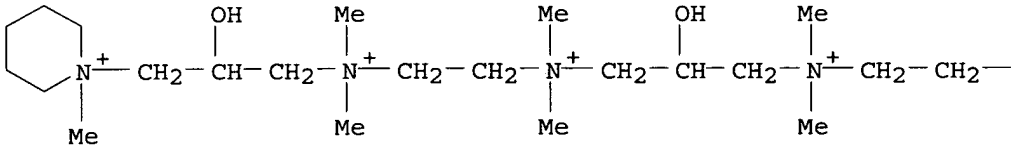
PAGE 1-B



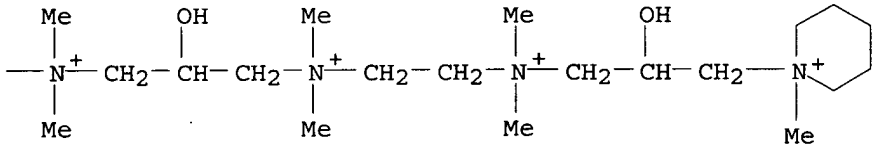
RN 103526-40-5 HCAPLUS
CN Piperidinium, 1,1'-(2,9,16,23-tetrahydroxy-4,4,7,7,11,11,14,14,18,18,21,21-dodecamethyl-4,7,11,14,18,21-hexaazoniatetracosane-1,24-diyl)bis[1-methyl-, octachloride (9CI) (CA INDEX NAME)

PAGE 1-A



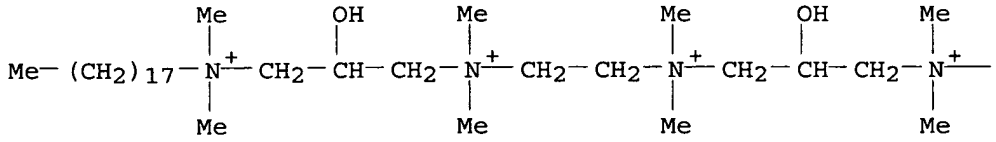
● 8 Cl⁻

PAGE 1-B



RN 103548-76-1 HCAPLUS
CN 1,3-Propanediaminium, N,N''-1,2-ethanediylbis[2-hydroxy-N,N,N',N'-tetramethyl-N'-octadecyl-, tetrachloride (9CI) (CA INDEX NAME)

PAGE 1-A



● 4 Cl⁻

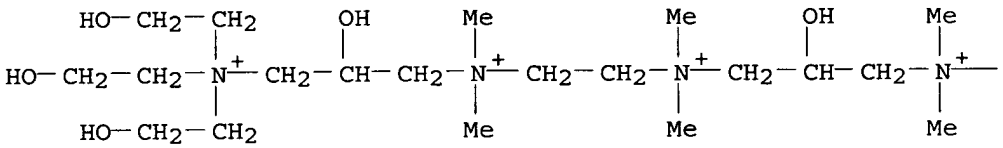
Searched by: Mary Hale 571-272-2507 REM 1D86

PAGE 1-B

— $(CH_2)_{17}$ — Me

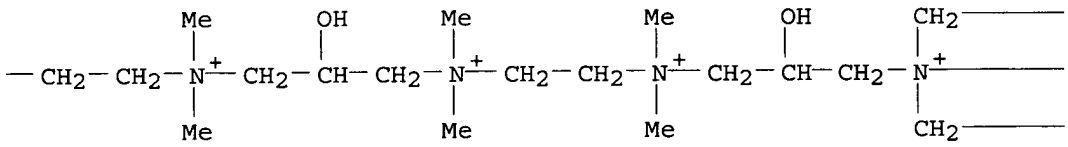
RN 103548-77-2 HCAPLUS
CN 4,7,11,14,18,21-Hexaazoniatetracosane-1,24-diaminium, 2,9,16,23-tetrahydroxy-N,N,N,N',N',N'-hexakis(2-hydroxyethyl)-4,4,7,7,11,11,14,14,18,18,21,21-dodecamethyl-, octachloride (9CI) (CA INDEX NAME)

PAGE 1-A



● 8 Cl^-

PAGE 1-B



PAGE 1-C

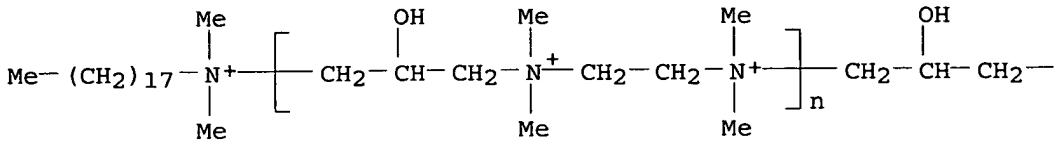
—— CH_2 — OH

— CH_2 — CH_2 — OH

—— CH_2 — OH

RN 103710-02-7 HCAPLUS
CN Poly[(dimethyliminio)-1,2-ethanediyl(dimethyliminio)(2-hydroxy-1,3-propanediyl) dichloride], α-[3-(dimethyloctadecylammonio)-2-hydroxypropyl]-ω-(dimethyloctadecylammonio)-, dichloride (9CI) (CA INDEX NAME)

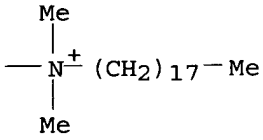
PAGE 1-A



●2 Cl⁻

●2 Cl⁻

PAGE 1-B



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FULL ESTIMATED COST	17.27	894.59

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-2.19	-7.73

FILE 'CAOLD' ENTERED AT 09:43:33 ON 04 MAR 2005

FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

L10 0 L6

=> fil hcaplus;s chu y?/au;s lasoud m?/au;s gebeyehu g?/au

Searched by: Mary Hale 571-272-2507 REM 1D86

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.43	895.02

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-7.73

FILE 'HCAPLUS' ENTERED AT 09:44:19 ON 04 MAR 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 4 Mar 2005 VOL 142 ISS 10
FILE LAST UPDATED: 2 Mar 2005 (20050302/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

L11 2157 CHU Y?/AU

L12 0 LASOUD M?/AU

L13 39 GEBEYEHU G?/AU

=> s masoud m?/au
L14 180 MASOUD M?/AU

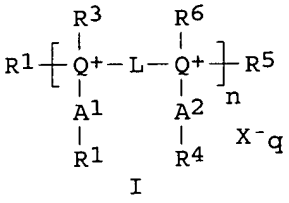
=> s l11 and l14 and l13
L15 1 L11 AND L14 AND L13

=> d cbib abs

L15 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN
2000:335366 Document No. 132:334312 synthesis and activity of transfection reagents for transport of biol. active agents or substances into cells. **Chu, Yongliang; Masoud, Malek; Gebeyehu, Gulilat** (Life Technologies, Inc., USA). PCT Int. Appl. WO 2000027795 A1 20000518, 130 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1999-US26825 19991112. PRIORITY: US 1998-PV108117 19981112.

Searched by: Mary Hale 571-272-2507 REM 1D86

GI



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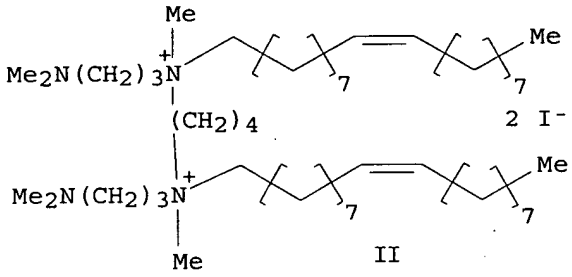

II

AB Synthesis and activity of transfection reagents (I) [Q = N, O, S; L = (un)substituted alkyl, ether, polyether, amide, polyamide, ester, sulfide, urea, thiourea, guanidyl, carbamoyl, carbonate, phosphate, sulfate, sulfoxide, imine, carbonyl, secondary amine; R1-R6 independently = (un)substituted alkyl, alkenyl, aryl, ether; A1, A2 independently = CH2O, CH2S, CH2NH, CO, C=NH, CS, alkyl; X = physiol. acceptable anion; n = 1-1000; q = number of pos. charge divided by valence of anion], cationic lipids capable of facilitating transport of biol. active agents or substances into cells, are disclosed. Thus, I [R1,R4 = oleyl; R2,R5 = Me2N(CH2)3; R3,R6 = Me; A1,A2 = CH2; L = (CH2)4; X = I] (II) is prepared by reaction of bis-1,4-oleyl-1,4-butandiamine with acrylonitrile followed by reduction of nitrile to amine and quaternization of amine with Me iodide. II shows an activity of 37.8 ng/βgal/cm2 in DNA delivery. Formulations containing I are given.